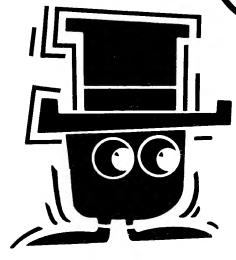


# LECTOR SE





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# "LOCK "N" CHASE"™ UPRIGHT

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### "LOCK "N" CHASE"™ UPRIGHT

### 1. GAME SET-UP

### A. INTRODUCTION

"LOCK "N" CHASE" upright game Manufactured by Taito America Corporation is designed for one or two players.

The object of the game is to Maneuver, with the joystick, the "Lupin" through the maze dodging the pursing Super D. Along the pathway collect as many coins as possible and you will earn additional bonus points. When all the coins are picked up along the pathway a door will open and you must guide your Lupin through escaping to the next screen.

The Lock Button is provided which close the shutters, helping to stall the traveling Super D and sometimes trapping them.

Treasures appear along the pathway, if picked up additional bonus points are scored.

When all the credited Lupins are arrested the game is over.

### **B. GAME INSPECTION**

TAITO AMERICA'S CORPORATION'S "LOCK "N" CHASE"™ upright game is ready to play when received. However, careful inspection is necessary to insure your game is in perfect condition. Please verify the following before turning the game on.

- Examine external parts for chips, dents, or broken parts.
- Open the service door and examine the following:
  - Plug-in connectors to make sure they are firmly seated.
  - Speaker
  - Player controls
  - Printed circuit boards making sure there is no damage to the components
  - Check for loose foreign objects especially metal objects which may cause electrical problems.
  - Fuses, making sure they are firmly seated in the holders.
  - Coin Mechanisms

The Video Monitor is properly adjusted before shipping. If there are any adjustments necessary refer to our Video Monitor Manual (72-00003-001).

If problems occur or technical assistance is required, contact our Customer Service Department HOT LINE Toll Free 800-323-0666 (except Illinois). Illinois phone 312 981-1000 X215.

### **POWER REQUIREMENTS**

TAITO AMERICA CORPORATION'S "LOCK "N" CHASE"™ upright game is shipped ready for operation at 120VAC, 60Hz with a power consumption of approximately 250 Watts.

### CAUTION

For safe operation it is recommended the cabinet be grounded. This game is equipped with a three conductor power cable. The third conductor is the ground conductor and when the cable is plugged into an appropriate receptable, the game is grounded. The offset pin on the power cable's three-prong connector is the ground connection.

### **LOCATION SPACE REQUIREMENTS**

Depth - 35" (87.5cm) Width - 24" (61cm) Height - 68" (171cm) Weight - 300 lbs. (Packaged Weight)

### C. GAME INSTALLATION

The following precautions should be followed when installing the game.

- Avoid rough handling of the game, the picture tube is fragile.
- Install the game on a level surface.
- Avoid installing the game where it may receive excessive sunlight or heat, to prevent the game from rising internal temperature.
- Do not install in a damp or dusty location.
- For a short time after connecting the power to the game, the picture may be temporarily distorted.

### D. DIP SWITCH AND VOLUME CONTROL SETTINGS

### **DIP SWITCHES**

TAITO AMERICA CORPORATION'S "LOCK "N" CHASE" upright game provides the following option switches. See Figure 1. These option switches can be found on the CPU Board (998913).

DIP SWITCH (1)

SW1, SW2, SW3, and SW4 are used for play pricing.

COIN(S) - PLAY(S)	SW1	SW2	SW3	SW4
2 coins - 1 play	ON	ON	ON	ON
1 coin - 3 plays	OFF	ON	OFF	ON
1 coin - 2 plays	ON	OFF	ON	OFF
1 coin - 1 play	OFF	OFF	OFF	OFF

SW5 and SW6 are not used.

SW7 is used for the upright Control Panel and should be kept in the ON

SW8 is used for the upright Video Monitor Screen and should be kept in the ON position.

DIP SWITCH (2)

SW1 is used to select the number of Lupins desired.

LUPINS	SW1
3	OFF
5	ON

SW2 and SW3 are used to select the number of Bonus Points desired.

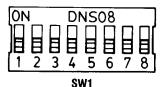
BONUS POINTS	SW2	SW3
15,000	OFF	OFF
20,000	ON	OFF
30,000	OFF	ON

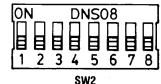
SW4 is used to select the Game Speed desired.

GAME SPEED	SW4
SLOW	OFF
FAST	ON

SW5, SW6, SW7 and SW8 are not used and should be kept in the OFF position.

### **OPTION SWITCHES** FIGURE 1





### VOLUME CONTROL LOCATIONS FIGURE 2



### **VOLUME CONTROL SETTING**

The Volume Control is located on the Game Board, when turned as indicated in Figure 1 the volume increases.

### 2. MAINTENANCE

All games require a certain amount of maintenance to keep them in good condition. A periodic check of mechanical controls would be beneficial to guarantee your game will be profitable.

### A. CLEANING

The exterior of the game, all metal parts and all plastic parts can be cleaned with an non-abrasive cleanser. Caution should be used when cleaning the plastic, a dry cloth can cause scratches and result in a foggy appearance.

### **B. FUSE REPLACEMENT**

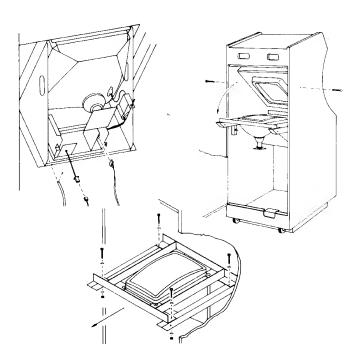
This game uses six fuses, 5 are located on the Switching Regulator. See Figure 2 for size and part number of fuses. One fuse is located on the Power Supply itself.

### C. VIDEO MONITOR REMOVAL

If you need to remove the video monitor, follow the instructions listed below:

### CAUTION

It is recommended the game be left disconnected for at least one hour before removing the video monitor. This will probably discharge the video tube but EXTREME CAUTION is still necessary.



- \* Disconnect power from the line voltage.
- \* Disconnect the monitor cable connector.
- \* Remove the wire cable clamp.
- \* Take out the two side bolts, one on each side of the cabinet.
- \* Remove the four mounting bolts and disconnect the green ground wire.
- Slide the monitor out by pulling the monitor toward you.

### **CAUTION**

Use extreme caution and do not touch electrical parts of the monitor yoke area with your hands or with any metal object in your hands! High voltages may exist in any monitor, even with power disconnected.

### D. VIDEO MONITOR ADJUSTMENTS

TAITO AMERICA CORPORATION presently uses either a Wells-Gardner Corporation or Electrohome 19" color Video Monitor in the "LOCK "N" CHASE" upright game. Refer to the Monitor Manual (72-00003-001) for your specific video monitor. Be sure to heed all the WARNINGS and CAUTION INSTRUCTIONS provided before repairing or replacing your Video Monitor.

### E. FLUORESCENT TUBE REPLACEMENT

### **CAUTION**

If you drop a fluorescent tube and it breaks, it will explode! PLEASE USE CARE WHEN REPLACING. See Figure 3.

- \* Remove the three screws from the marquee bracket, being sure to hold the glass while removing the screws.
- Remove the marquee glass and the fluorescent bulb is accessible.
- \* With both hands turn the bulb toward you, carefully pull the lamp out of the lamp socket.

### F. PRINTED CIRCUIT BOARD REPLACEMENT

You may wish to remove the "LOCK "N" CHASE" upright printed circuit boards for replacement or service. See Figure 9 To remove the "LOCK "N" CHASE" upright board set. Disconnect the VV, P & G connectors unclip from the top of the board and slide board set toward you, pulling the board set out of the wooden cleat.

### WARNING

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. As temporarily permitted by regulation it has not been tested for compliance pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

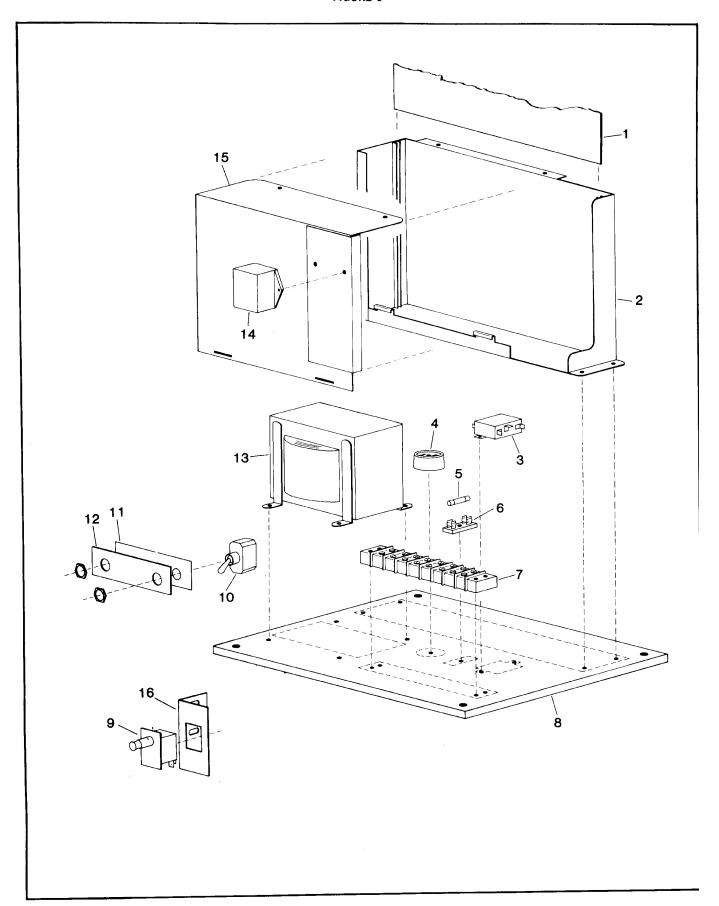
# **SWITCHING REGULATOR**

# FIGURE 3

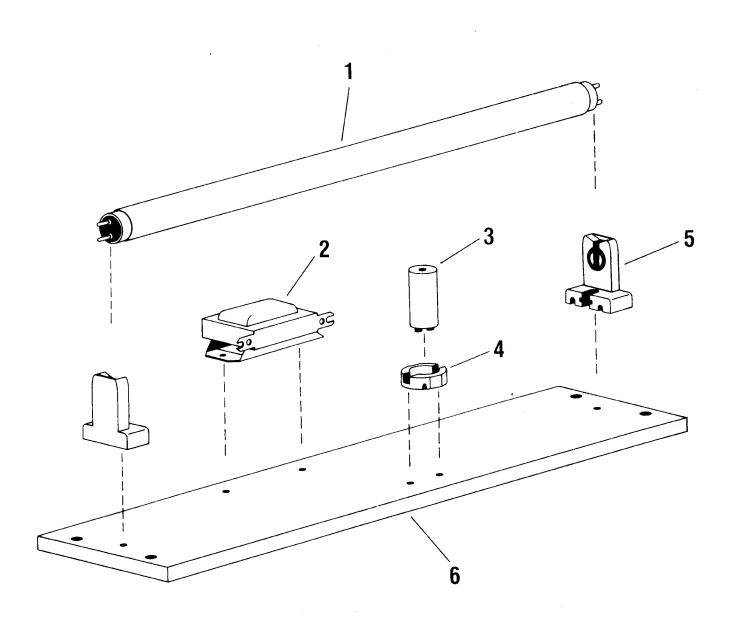
ITEM	TAITO PART NO.	DESCRIPTION
1	800010	Switching Regulator
2	998702	Shield Box
3	22B00001-001	Line Filter
4	26-00003-001	Service Outlet
5	24-00002-001	Fuse, 3 AMP, 3AG, Slo-Blo
6	24-00001-001	Fuse Holder
7	35-00001-001	Barrier Strip - 8 Position
8	42C00034-001	Power Mounting Board
9	29B00005-001	Interlock Switch
10	29B00004-001	Toggle Power Switch
11	35A00004-001	Insulator
12	61A00029-001	Toggle Switch Bracket
13	18A00001-001	Isolation Transformer
14	019501	Noise Filter
15	998703	Shield Cover
16	61B00030-001	Interlock Switch Bracket
*17	35B00002-001	Insulating Shield
*18	850005	Switching Regulator Assembly

\* Note: Item is not shown on drawing

# SWITCHING REGULATOR

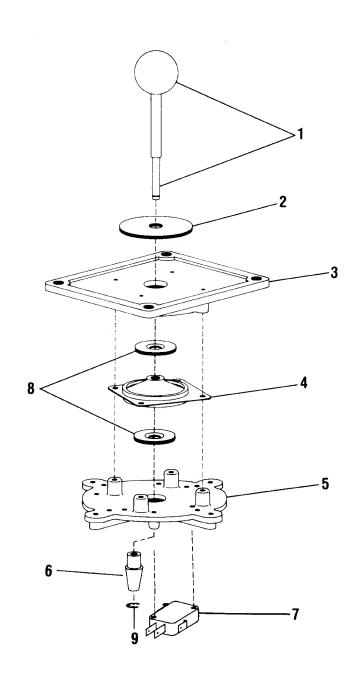


ITEM	TAITO PART NO.	DESCRIPTION
1	27-00001-001	Flourescent Tube, STD 15W
2	18-00002-001	Ballast Transformer (120V, 60Hz)
3	29-00003-001	Starter
4	26-00005-001	Starter Socket
5	26-00004-001	Lamp Socket
6	42B00057-001	Flourescent Lamp Panel



# 4-WAY JOYSTICK

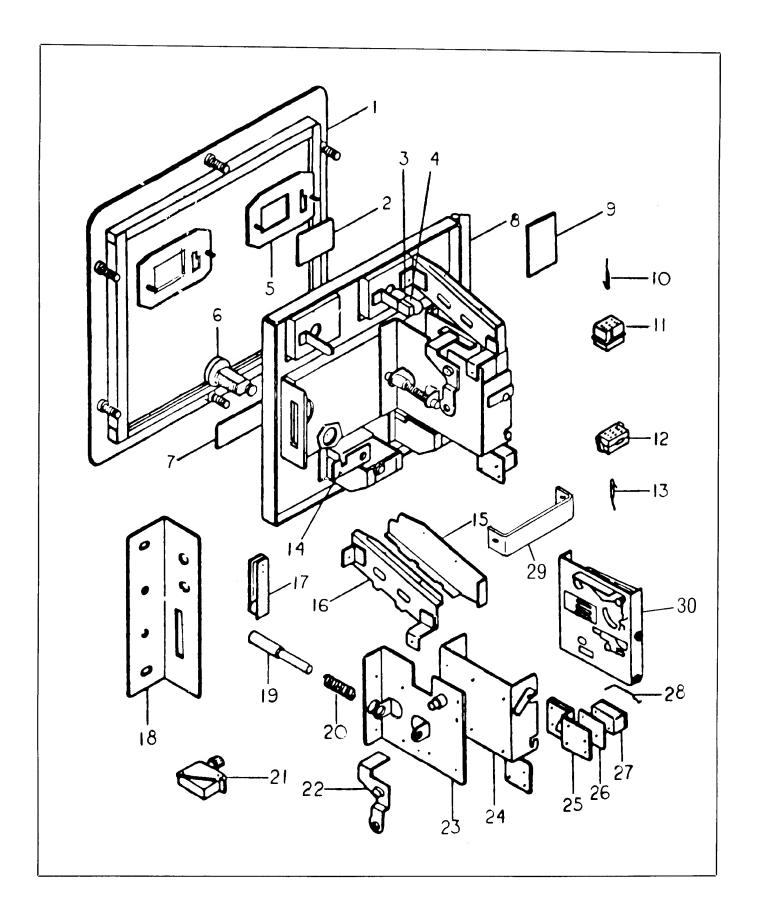
ITEM	TAITO PART NO.	DESCRIPTION
1	63A00031-001	Ball & Shaft
2	63A00033-001	Mask
3	63C00027-002	Mounting Plate
4	62A00002-001	Shock Mount Plate
5	63C00028-002	Switch Plate
6	63A00030-001	Actuator
7	29-00014-001	Micro Switch
8	63A00029-001	Spacer
9	59A00020-017	"E" Ring



# COIN MECHANISM AND FRONT DOOR ASSEMBLY

ITEM	TAITO PART NO.	DESCRIPTION	REFERENCE
1	500010	Door Frame	AA026510
2	79-50005-001	Price Card U.S. 25¢	AA029512
3	27-00002-001	Pilot Lamp, 12V, 150Ma	AA054704
4	113001	Vinyl Socket	AA055698
5	61A00051-001	Coin Entry Plate for 25¢	
6	600006	Service Lock & Key No. 7900	AA016558
7	79A00016-001	TAITO Name Tag	
8	500009	Coin Rejection Door	AA026511
9	500021-E	Cover Plate	AA019522
10	104000	Mate-N-Loc Pin A	AA055789
11	103007	Mate-N-Loc Housing 9 Pin	AA055581
12	103008	Mate-N-Loc Housing 9 Pin	AA055582
13	104001	Mate-N-Loc Pin 1B	AA055790
14	500021-I	Lock Plate	AA013578
15	500021-G	Coin Guide (B)	AA025508
16	500021-H	Coin Guide (A)	AA025507
17	500021-J	Tilt Switch	AA068717
18	61-00041-001	Lock Guard	AA013577
19	500021-K	Rejection Button	AA027504
20	500021-L	Spring Cancel Holder	AA015504
21	024501	Service switch	
22	500021-M	Cancel Lever	AA013557
23	500021-N	Rejector Bracket	AA013554
24	500021-P	Rejector Holder	AA023501
25	500054	Coin Guide	AA025503
26	199005	Insulator	AA019502
27	29-00007-001	Micro Switch	AA052512
28	370002	Actuator	AA053501
29	500021-R	Rejector Lever Connector	
30	59-00018-001	Coin Acceptor	

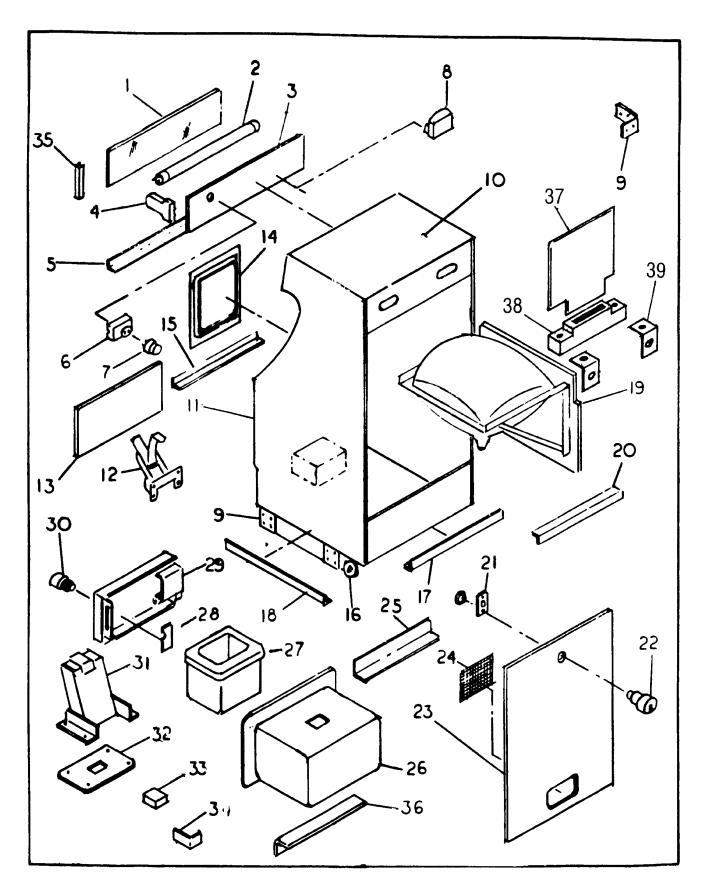
# COIN MECHANISM AND FRONT DOOR ASSEMBLY



# **VIDEO & CABINET ASSEMBLY**

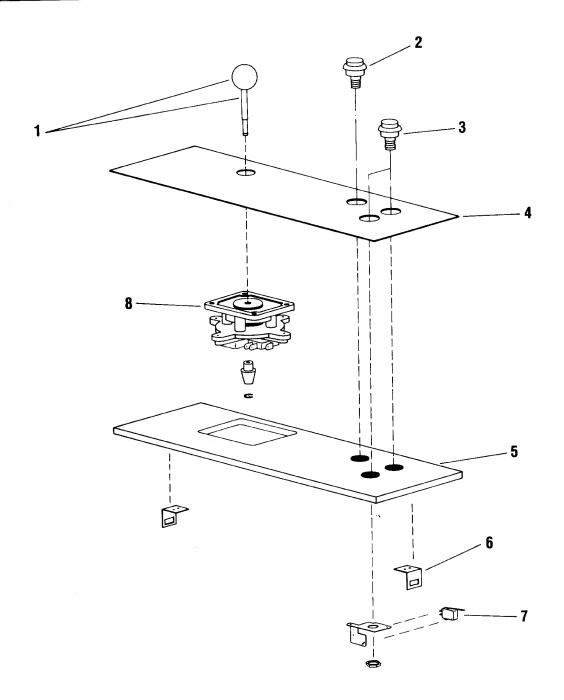
ITEM	TAITO PART NO.	DESCRIPTION	REFERENCE
1	47C00001-004	Screened Marquee	
2	27-00001-001	Fluorescent Tube, Std., 15W	
3	42B00057-001	Fluorescent Lamp Panel	140006
4	26-00004-001	Lamp Socket	113000
5	61C00007-001	Marquee Retainer	500024
6	26-00005-001	Starter Socket	114001
7	29-00003-001	Starter	114000
8	18-00002-001	Ballast Transformer	
9	61B00011-001	"L" Bracket	
10	41B00002-004	Cabinet	
11	63-00002-001	"T" Molding	400007
12	59-00008-001	Clamp Fastener	390002
13	47D00002-003	Screen Cover Glass	
14	63C00003-001	Monitor Shroud	400005
15	61C00016-001	Glass Retaining Bracket	500022
16	44C00001-001	Wheel Assembly	520000
17	63B00005-002	"L" Molding, Black, 221/2" Long	400031-A
18	63B00005-003	"L" Molding, Black, 3'4" Long	400031-B
19	31-00001-002	Electrohome Monitor, 19" Color	620007
19A	31-00002-002	Wells-Gardner Monitor, 19" Color	
20	61C00080-001	Video Mounting Bracket	
21	45-00001-001	Anchor Plate	600005-C
22	45-00001-001	Lock & Key	600005
23	42C-00035-001		143003
24	61B00027-001	Grill	500074
25	500086	Mounting Bracket (Top)	
26	500088	Cash Box	AA028507
27	400050	Cash Case	AA028506
28	600007	Lock Plate	AA013593
29	500089	Cash Box Door	AA026512
30	600006	Lock (Cash Box) & Key	AA016545
31	500060	Coin Funnel	AA025510
32	500061	Coin Funnel Plate	AA013690
33	115000	Counter, 6V DC	AA013608
34	500091	Counter Bracket	
35	63B00006-004	"U" Channel	400025
36	500087	Bottom Bracket	
37	36-00001-001	Counter Drive Credit Board	800011
38		10 Position Edge Connector	
39	61A00014-001	Credit Board Bracket	
*40		PCB Board Set "LOCK "N" CHASE"	
*41	998843	Game Board (B)	
*42	998844	CPU Board (A)	
*43	42C00013-001	Monitor Cleat	
*44	61C00086-001	Corner Bracket (Monitor Mounting)	
*45	07-00005-001	Speaker	
*46	63C00054-001	Lexan, Decal	

# **VIDEO & CABINET ASSEMBLY**



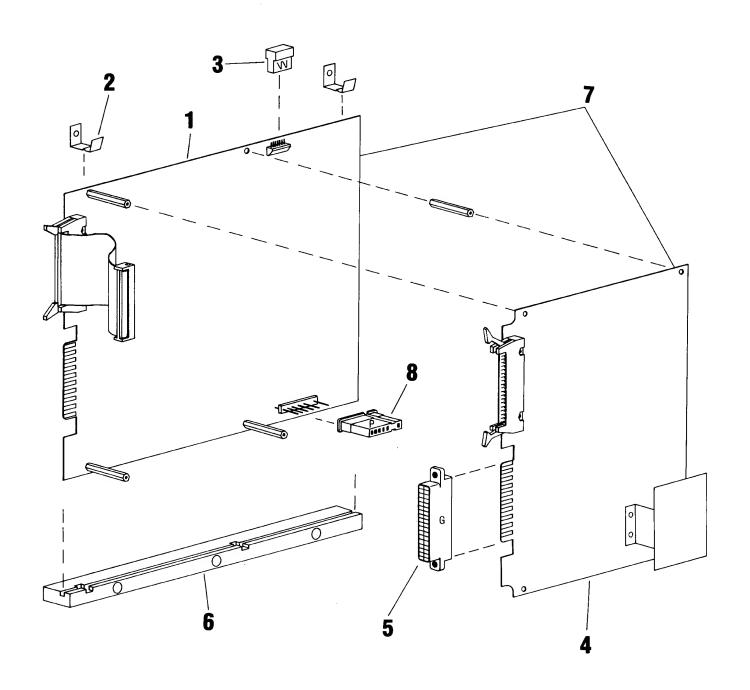
# **CONTROL PANEL**

ITEM	TAITO PART NO.	DESCRIPTION
1	04M00032-001	Ball & Shaft Kit
2	29-00009-002	Push Button (Red)
3	29-00009-001	Push Button (White)
4	47D00014-001	Control Panel (Screened)
5	47D00109-001	Control Panel (Wood)
6	61A00015-001	Strike Hook
7	29-00014-001	Microswitch
8	63D00032-003	4-Way Control Assembly



# PCB MOUNTING ASSEMBLY

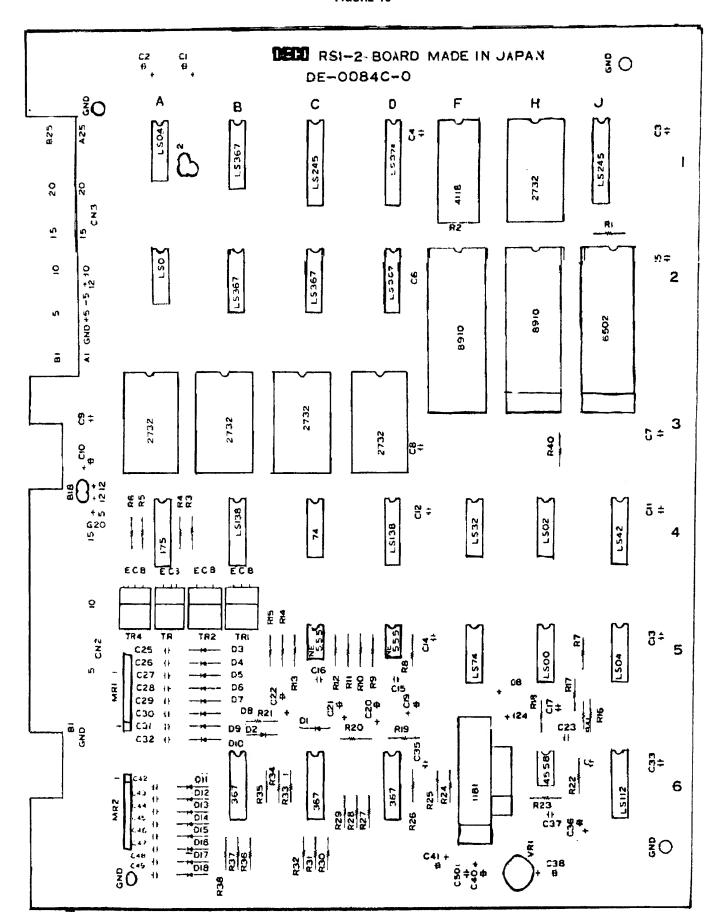
ITEM	TAITO PART NO.	DESCRIPTION
1	998843	PCB Game Board (B)
2	59B00030-001	Mounting Clip
3	25-00016-001	W Connector 6-Position
4	998844	PCB CPU Board (A)
5	25-00038-001	G Connector 36-Position
6	42C00062-001	Wood Mounting Cleat
7	08M00015-001	"Lock 'N" Chase" Board Set
8	25-00036-006	P Connector 6-Position



# **GAME BOARD**

DECICNATION	TAITO PART NO.	DESCRIPTION
DESIGNATION 2A, 5H	076000	74LS00 TTL-LS Type, IC
4H	076001	74LS02 TTL-LS Type, IC
1A, 5J	076003	74LS04 TTL-LS Type, IC
4F	076019	74LS32 TTL-LS Type, IC
4J	076024	74LS42 TTL-LS Type, IC
5F	076032	74LS74 TTL-LS Type, 1C
6.J	997522	74LS112 TTL-LS Type, IC
4B, 4D	997523	74LS138 TTL-LS Type, IC
1C, 1J	997529	74LS245 TTL-LS Type, IC
1B, 2B, 2C, 2D	997530	74LS367 TTL-LS Type, IC
10	997528	74LS374 TTL-LS Type, IC
4C	075045	74LS74 TTL-LS Type, IC
6B, 6C, 6D	998111	74LS367 TTL-LS Type IC
2H, 2F	083001	Ay-3-8910 Sound IC GI
2J	997480	6502 CPU Synertek
1H	80-00008-001	E-PROM (2732) Intel (SA)
3A	80-00008-010	E-PROM (2732) Intel (A0)
3B	80-00008-001	E-PROM (2732) Intel (S1)
3C	80-00008-002	E-PROM (2732) Intel (S2)
3D	80-00008-003	E-PROM (2732) Intel (S3)
1F	997492	S-RAM (4118) Mostek
6H	998068	OP-AMP (4558) NEC
6F	998069	Power-amp (1181H) NEC
5C, 5D	998070	(555) NEC
D1, D2, D3, D4 D5, D6, D7, D8 D9, D10, D11 D12, D13, D14 D15, D16, D17 D18	997957	NEC Diode
MR1, MR2	997631	(MS1028) IAM
R10, R14 R20, R21	997643	33 Ohm, ¼W, Resistor

DESIGNATION	TAITO PART NO.	DESCRIPTION
R24, R25, R26 R27, R28, R29	997646	100 Ohm, 1/2W, Resistor
R19, R30, R31 R32, R33, R34 R35, R36, R37 R38	997644	100 Ohm, ¼W, Resistor
R9, R11, R13 R15, R2, R7	997634	1 Kohm, ¼W, Resistor
R8, R12, R17 R1, R40	997638	10 Ohm, ¼W, Resistor
R18	997639	47k ohm, ¼W, Resistor
R16, R22, R23	997627	100K Ohm, 1/4W, Resistor
MR1	997647	SP-19R (1K 0hm)
MR2	997647	SP-19R (1K 0hm)
MR3	997647	SP-19R (1K Ohm)
MR4	997647	SP-19R (1K 0hm)
C39	997805	1uf, 16V, Capacitor
C19, C20 C21, C22	035028	22uf, 16V, Capacitor
C24, C38, C40	035032	47uf, 16V, Capacitor
C1, C2, C10	030015	100uf, 16V, Capacitor
C18	997804	100uf, 25V, Capacitor
C34	997801	150uf, 25V, Capacitor
C15, C16, C25 C32, C42, C49	997799	0.01uf, 25V Capacitor
C33, C35, C3, C9 C11, C14, C39	026014	0.1uf, 25V Capacitor
C17, C23	997806	0.068uf, 25V Capacitor
C36	026014	0.1uf, 25V Capacitor
1H, 1F, 3A, 3D	999549	DACA - 24C - TI - IC
2H, 2F, 2J	999551	DACA - 40C - TI - IC

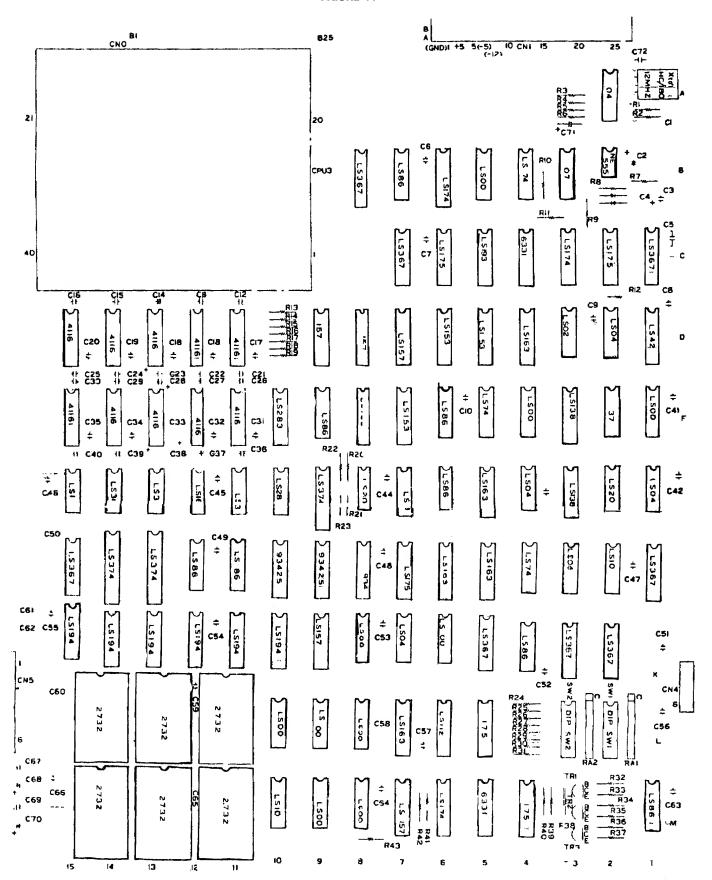


# **CPU BOARD**

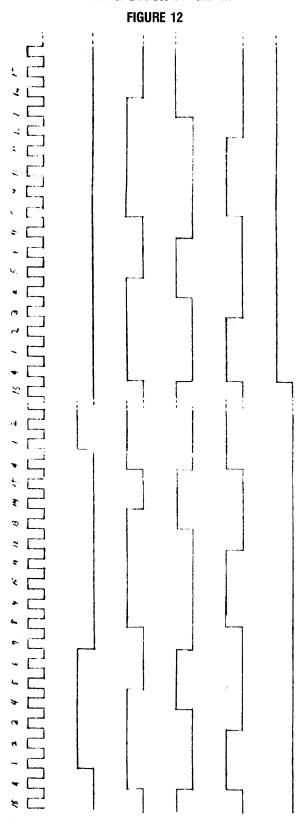
	TAITO	
DESIGNATION	PART NO.	DESCRIPTION
1F, 4F, 5B, 6K 8M, 9L, 10L, 9M	076000	74LS500 TTL-LS Type, IC
3D	076001	74LS502 TTL-LS Type, IC
1H, 2D		
3J, 4H, 7K	076003	74LS04 TTL-LS Type, IC
2J, 10M	997520	74LS10 TTL-LS Type, IC
2H, 8H	076012	74LS20 TTL-LS Type, IC
8L	997521	74LS30 TTL-LS Type, IC
1D	076024	74LS42 TTL-LS Type, IC
4B, 4J, 5F	076032	74LS74 TTL-LS Type, IC
4K, 6F, 7B 8K, 11J, 12J 1M, 10F, 6H	076037	74LS86 TTL-LS Type, IC
6L	997522	74LS112 TTL-LS Type, IC
3H, 3F	997523	74LS138 TTL-LS Type, IC
5D, 6D 7F, 7H, 8F	076057	74LS153 TTL-LS Type, IC
7D, 7M, 9K	076060	74LS157 TTL-LS Type, IC
4D, 5H, 5J 6J, 7K, 11H, 12H	997524	74LS163 TTL-LS Type, IC
3C, 6B, 6M	076072	74LS174 TTL-LS Type, IC
2C, 6C 7J, 15H	076073	74LS175 TTL-LS Type. IC
5C	997525	74LS173 TTL-LS Type, IC
10K, 11K, 12K	337020	7420170 112 20 1990, 10
13K, 14K, 15K	997526	74LS194 TTL-LS Type, IC
10H, 10f	997527	74LS283 TTL-LS Type, IC
1C, 1J, 2K, 5K 7C, 8B, 8C		
13H, 14H, 15J	076119	74LS367 TTL-LS Type, IC
9H, 13J, 14J	997528	74LS374 TTL-LS Type, IC
3B	075007	75LS07 TTL-LS Std. Type, IC
2F	998108	75LS37 TTL-LS Std. Type, IC
8D, 9D	998109	75LS157 TTL-LS Std. Type, IC
4M, 5L	998110	75LS175 TTL-LS Std. Type, IC
2A	075703	74LS04 TTL-S Type, IC
11F, 15F 11D, 15D	997473	D-RAM (4116) Fujitsu
4C	997576	Bi-Polar Rom (6331) Fairchild
5M	997577	Bi-Polar Rom (6331) Fairchild
12M	80-00008-005	E-PROM (2732) Intel (S5)
13 <b>M</b>	80-00008-007	E-PROM (2732) Intel (S7)
15 <b>M</b>	80-00008-009	E-PROM (2732) Intel (S9)
12L	80-00008-004	E-PROM (2732) Intel (S4)
13L	80-00008-006	E-PROM (2732) Intel (S6)
15L	80-00008-008	E-PROM (2732) Intel (S8)
D1, D2	997957	15593 NEC

DESIGNATION	TAITO Part No.	DESCRIPTION
TR1, TR2 TR3, TR4	998038	2SC945 NEC
·.	998307	X-TAL (12MHz)
RA1, RA2	997631	MS1028 (1K Ohm) IAM
R38, R39		
R40, R41 R42, R43	997634	1K Ohm, ¼W, Resistor
R25, R28, R29	997635	1.5K Ohm, 1/4W, Resistor
R24, R26, R30	997636	3.3K Ohm, 1/4W, Resistor
R20, R21, R22	007000	0.01. 0.1111, 74.17, 1.00.000
R23, R27, R31	997637	4.7K Ohm, ¼W, Resistor
R7, R11, R12	997638	10K Ohm, ¼W, Resistor
R8	997639	47K Ohm, ¼W, Resistor
R9, R10, R13		
R14, R15, R16 R17, R18, R19	997640	47 Ohm, ½W, Resistor
R3, R4, R5, R6	997641	330 Ohm, ¼W, Resistor
R1, R2, R32		
R35, R37	997642	470 Ohm, ¼W, Resistor
C4	997798	6.8uf, 16V Capacitor
C2	030011	22uf, 16V Capacitor
C62, C68, C70	030015	100uf, 16V Capacitor
C1, C3	997799	0.01uf, 25V Capaitor
C5, C8, C10 C12, C13, C14 C15, C16, C17 C18, C19, C20 C21, C22, C23 C24, C25, C26 C27, C28, C29 C30, C31, C32 C33, C34, C35 C36, C37, C38 C39, C40, C41 C42, C43, C44 C45, C46, C47 C48, C49, C50 C64, C63, C65 C66, C67, C69 C57, C60, C54 C55, C51, C53 C56, C58, C61 C72, C6, C7	026014	0.1uf, 25V Capacitor
C43, C57	026038	100pf, 25V Capacitor
C47, C52, C9	997802	1000pf, 25V Capacitor
R33, R34, R36	997645	180 Ohm, ¼W, Resistor
R41, R42, R43	997634	1K Ohm, ¼W, Resistor
12M, 13M, 15M 12L, 13L, 15L	999548	IC Sockets, DACA - 24C - TI

# **CPU BOARD**



# TIMING CLOCK DIAGRAM



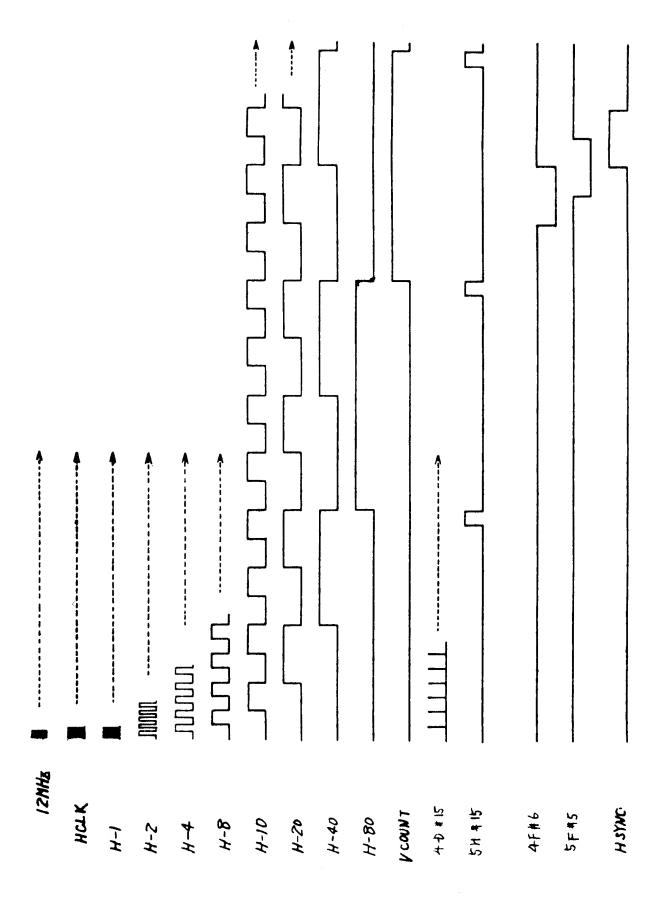
T COUNT

₹

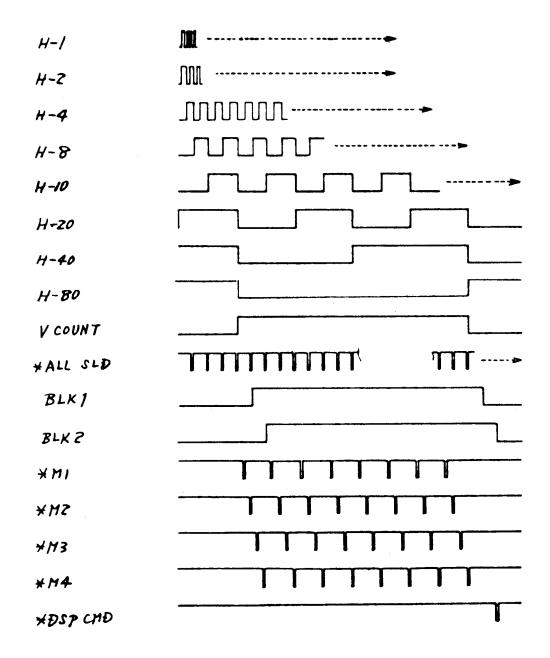
12 Mir ok

NI +

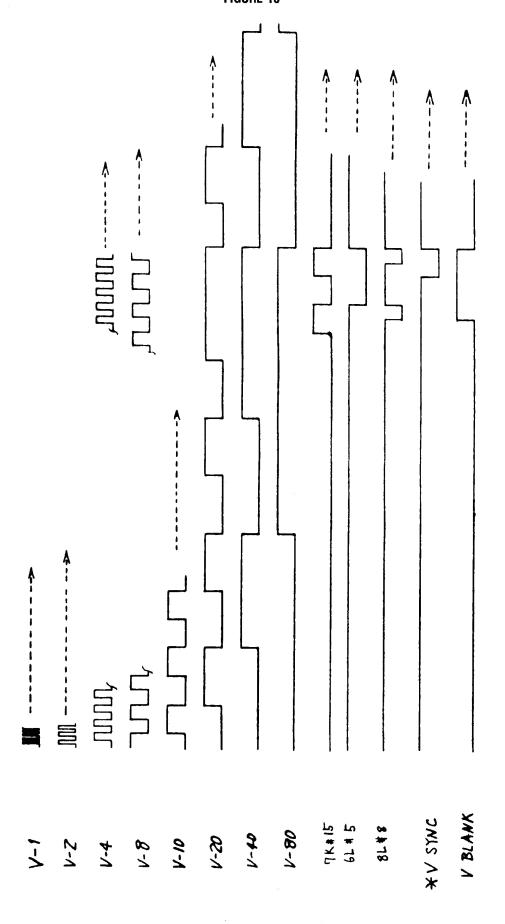
# **CRT HORIZONTAL CLOCK (1)**



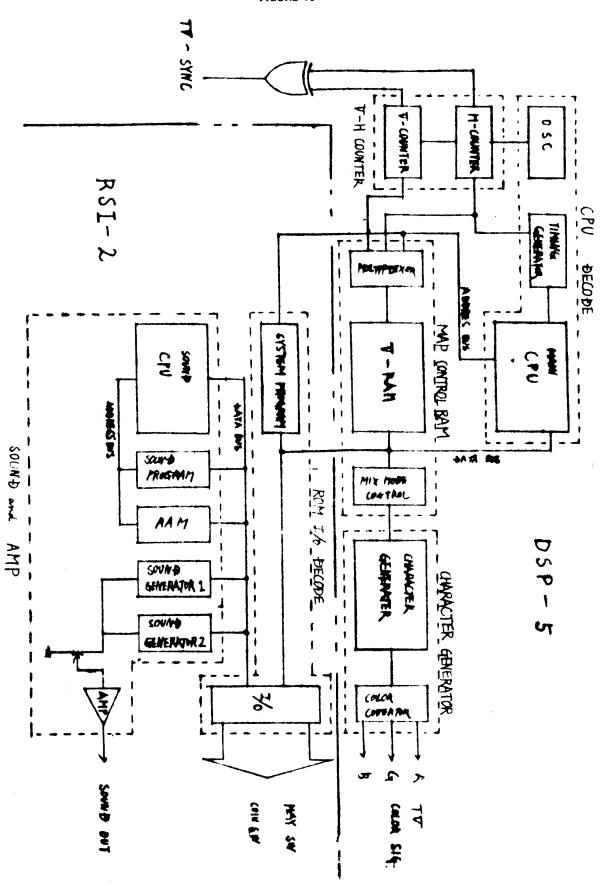
# CRT HORIZONTAL CLOCK (2)



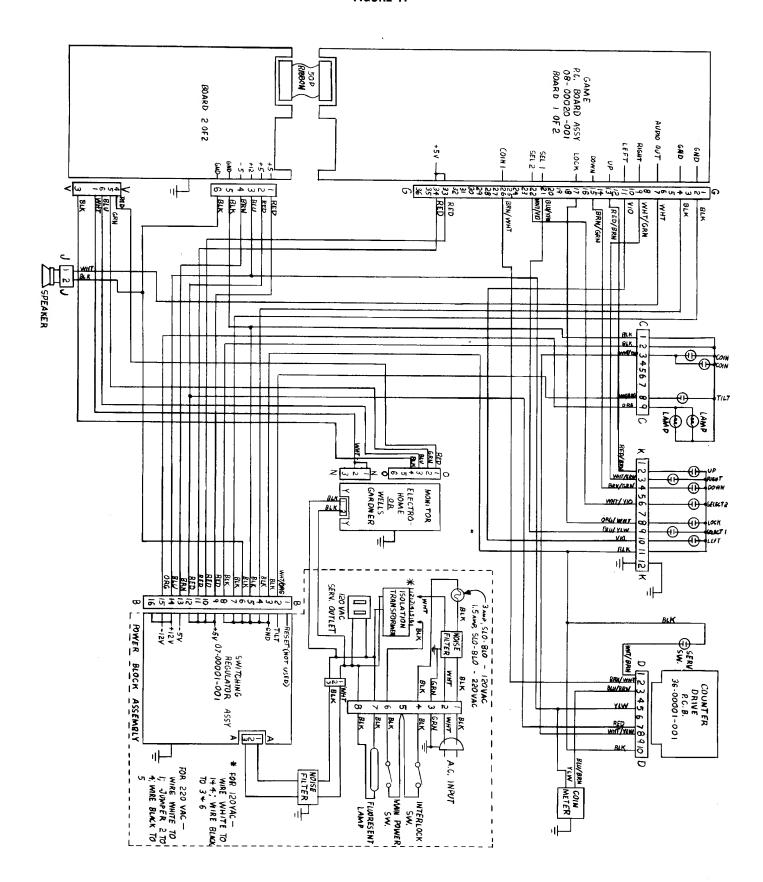
# CRT VERTICAL CLOCK



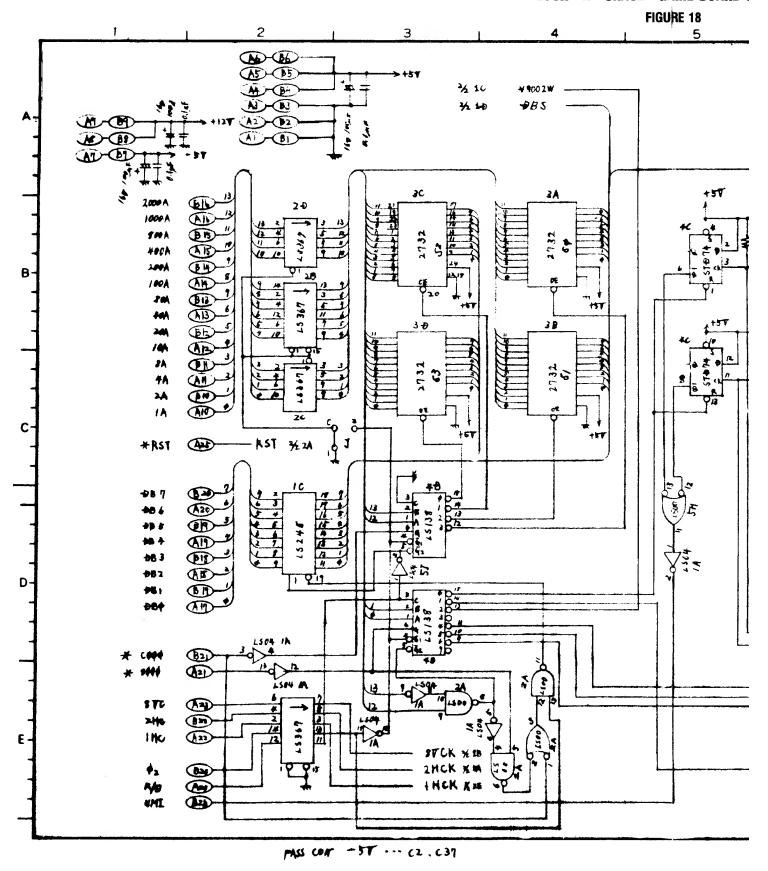
# **BLOCK DIAGRAM**



# **WIRING DIAGRAM**

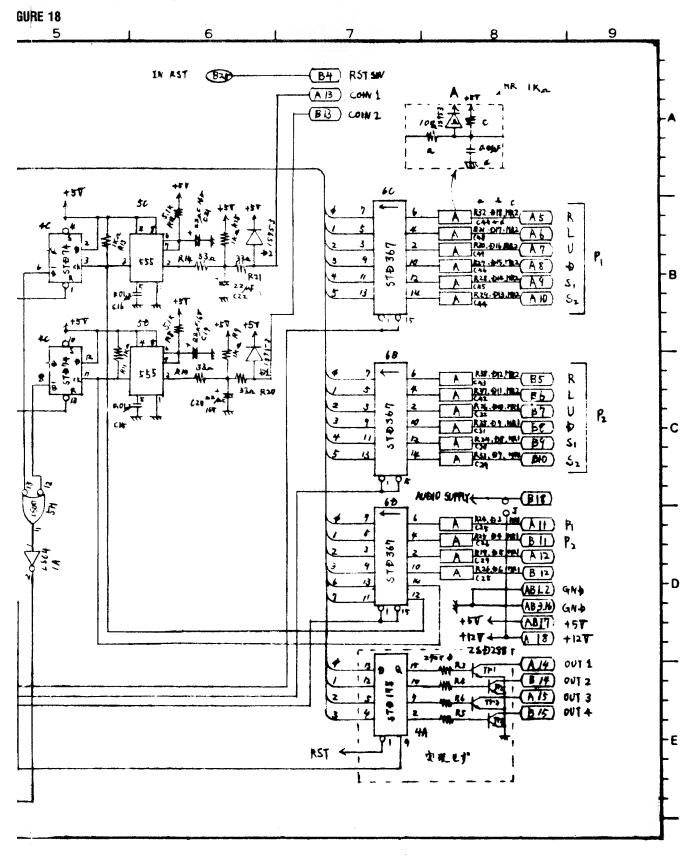


# "LOCK "N" CHASE" GAME BOARD S

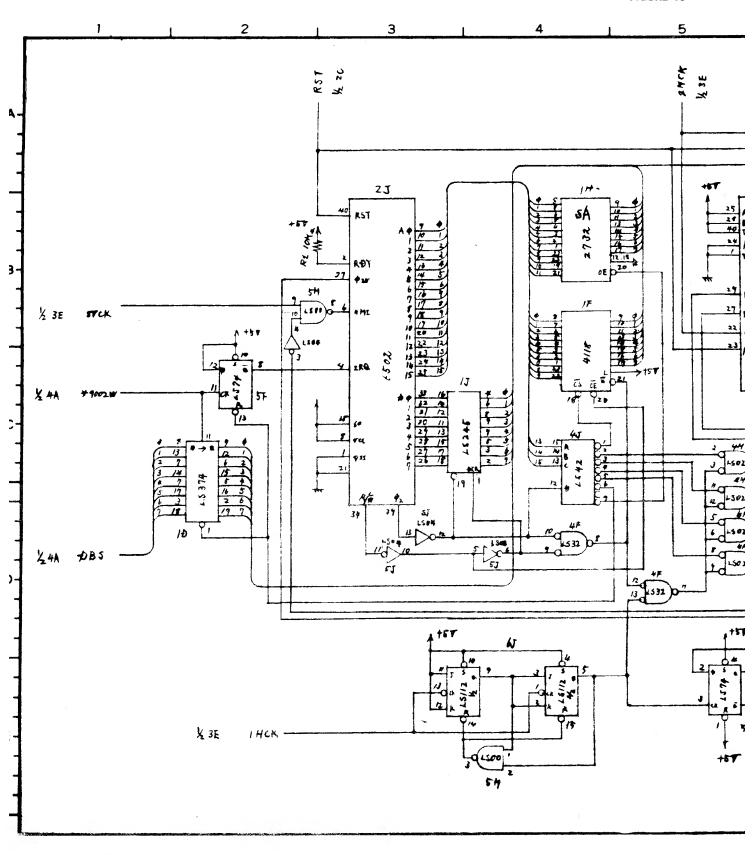


+12T ··· cq, c10. +FF ··· c1, c3~cq, c11~4, (33, C37) AB — CN2 ANNO SUPPLY ··· CN

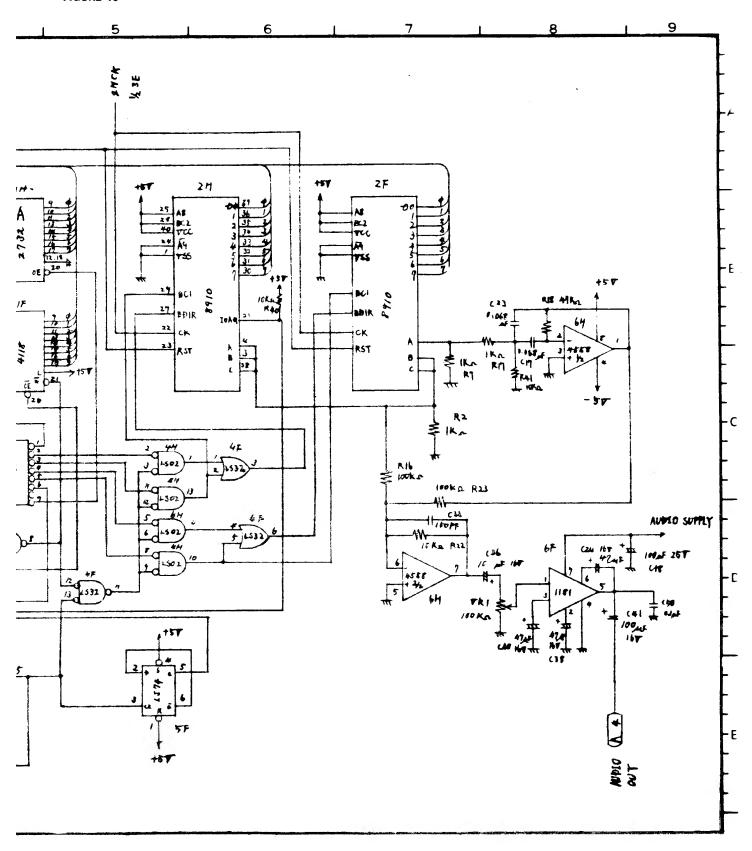
### **GAME BOARD SCHEMATIC**







# **CHASE" GAME BOARD SCHEMATIC**

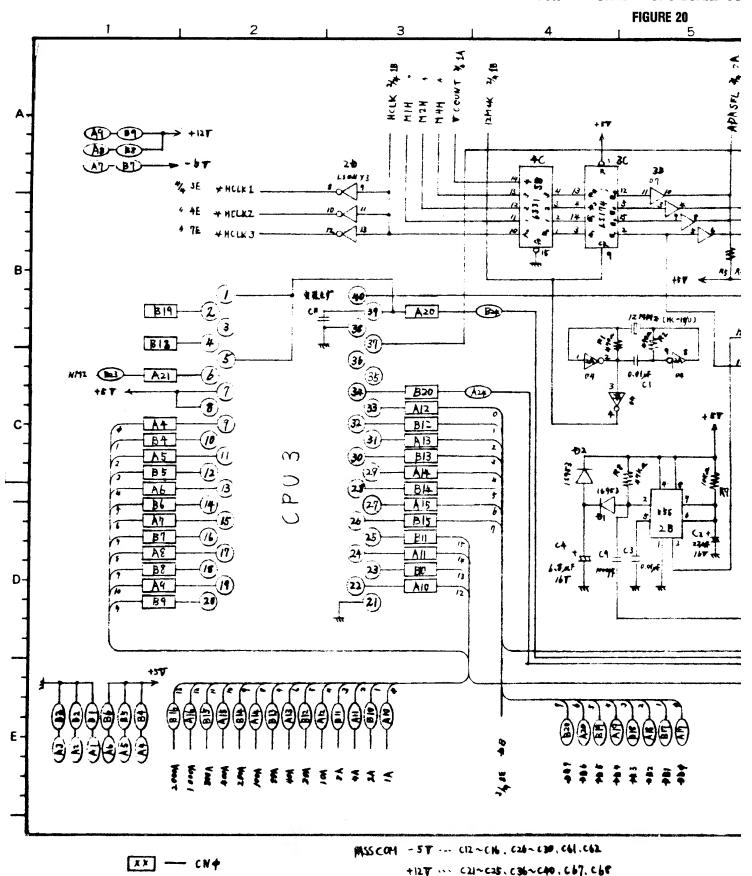


# "LOCK "N" CHASE" CPU BOARD SC

+57 " C5~C8, C10, C15, C19~ C20, C31~C35, C41, C42

670, c63 ~ c66

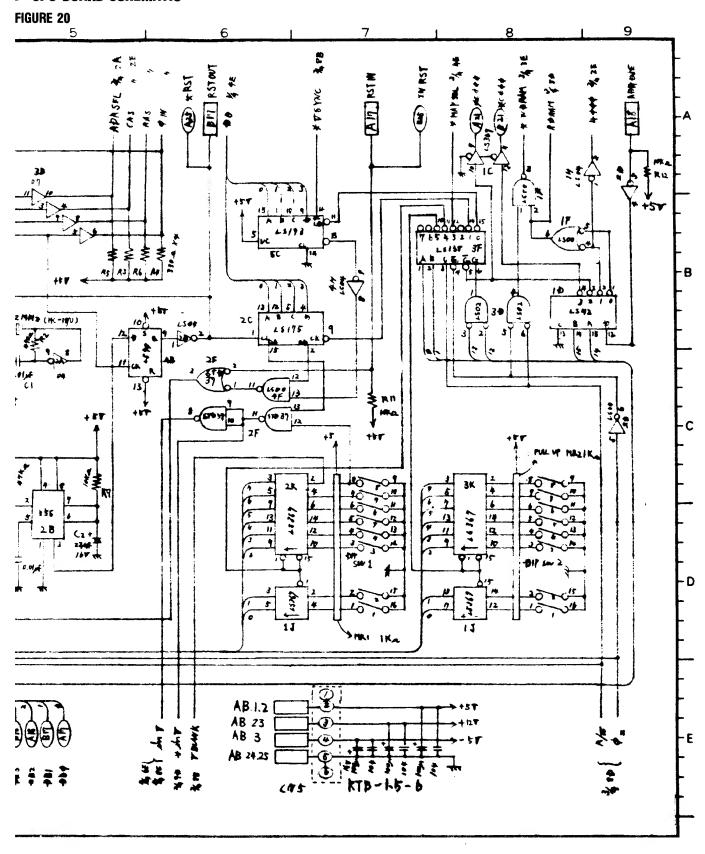
CHICAL CAPACET. CESTICES, CEPTICES, CEPT

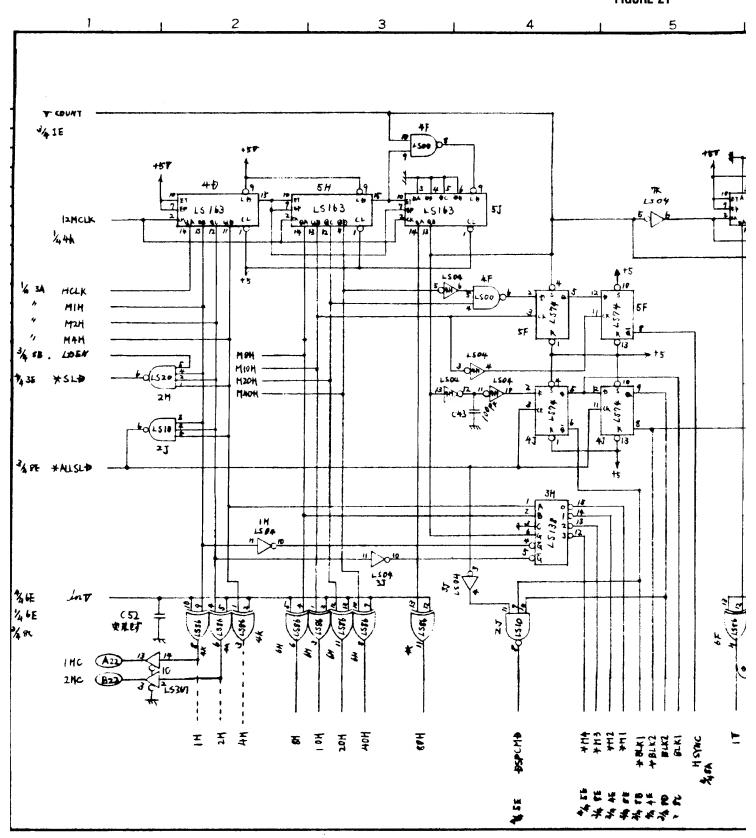


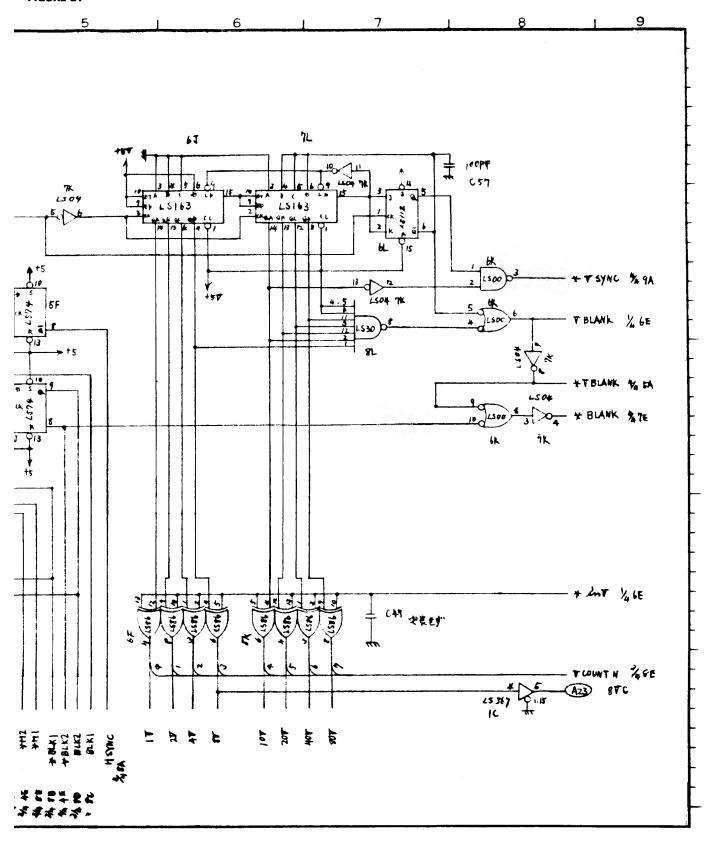
(II)

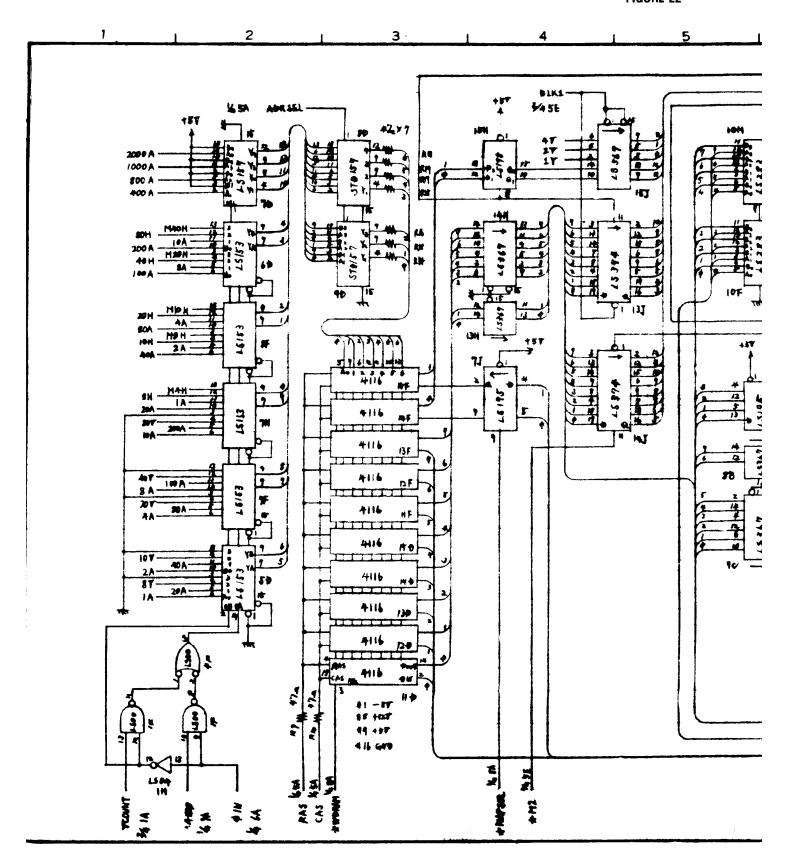
- CNL

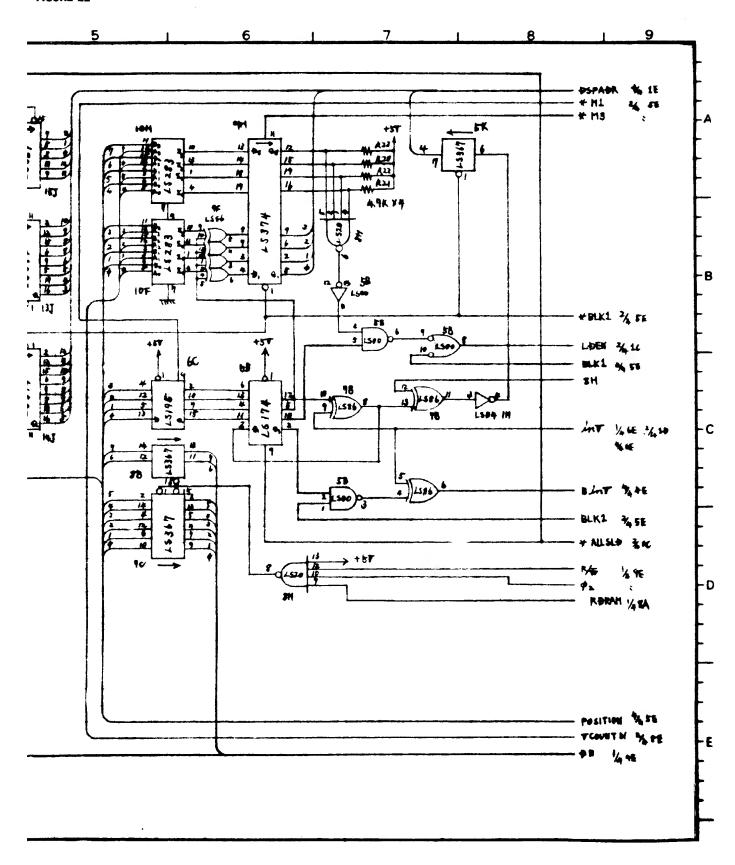
# **E" CPU BOARD SCHEMATIC**











"LOCK "N" CHASE" CPU BOARD SO

